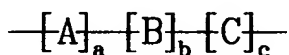


LISTING OF THE CLAIMS

1. (Previously Presented) A photo-alignment material having a photo-reactive ethenyl group in a polymer main chain, wherein the polymer is according to chemical formula 1:
{chemical formula 1}

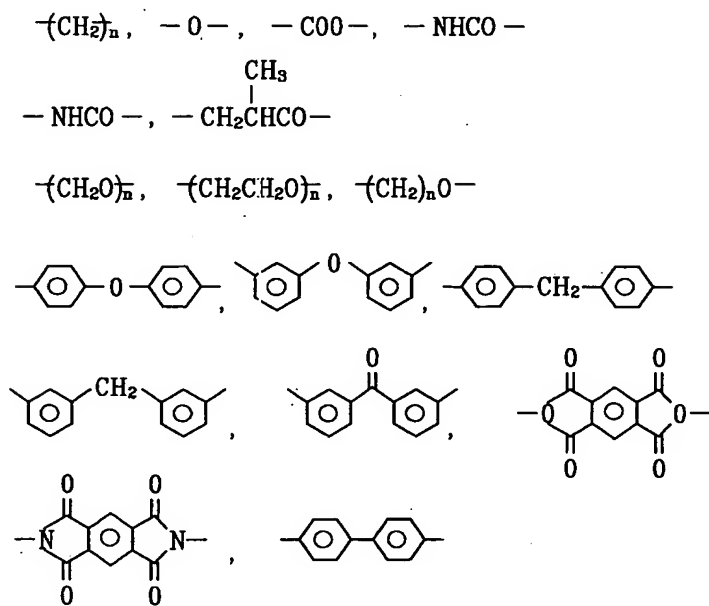


wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein $0 < a \leq 1$, $0 \leq b < 1$, and $0 \leq c < 1$, and wherein component A is a monomer including the photo-reactive ethenyl group selected from groups designated in chemical formula 2, substituted-structure groups of chemical formula 2 having a halogen, a cyano, a nitro, an amino group, and other substituted-structure groups with an alkyl, a haloalkyl, and a cyanoalkyl group having 1 to 10 carbons, or an aryl, an alkyl, an aryl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

Chemical structures of various monomers and polymers, including alkenes, cycloalkenes, aromatic compounds, and heterocycles, are shown. The structures are arranged in a grid-like fashion, with some structures labeled with 'X' and 'S'.

2. (Original) The photo-alignment material of claim 1, wherein components B and C are selected independently from groups shown in chemical formula 3, substituted-structure groups of chemical formula 3 with a halogen, a cyano, a nitro, an amino group, other substituted-structure groups with carbonated groups of which carbon number n lies between 1 and 10 such as an alkyl, a haloalkyl, and a cyanoalkyl, and other carbonated groups of which carbon number lies between 3 and 8 such as an alkylaryl, a haloaryl, a haloalkylaryl, a nitroaryl, and a cyanoaryl;

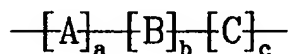
{Chemical Formula 3}



Claims 3-32 (Canceled).

33. (Previously Presented) A photo-alignment material having a photo-reactive ethenyl group in a polymer main chain, wherein the polymer is according to formula 1:

{formula 1}

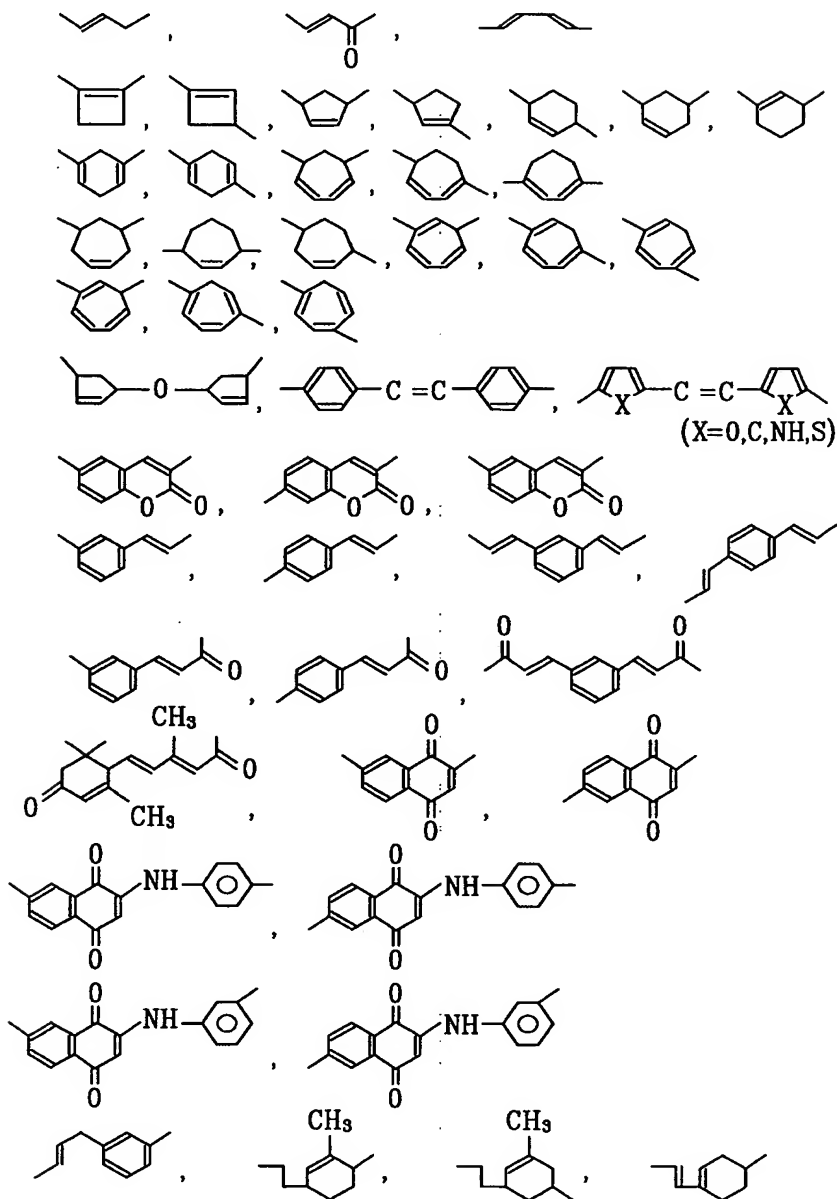


wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein $0 < a \leq 1$, $0 \leq b < 1$, and $0 \leq c < 1$;

wherein component A is a monomer having the photo-reactive ethenyl group of formula 2, and the monomer having a photo-reactive ethenyl group of formula 2 can be substituted with at least one selected from the group consisting of a halogen, a cyano, a nitro, an amino group, an alkyl, a haloalkyl, a cyanoalkyl group having 1 to 10 carbons, an aryl, an alkyl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

wherein formula 2 is selected from a group consisting of:

{Formula 2}

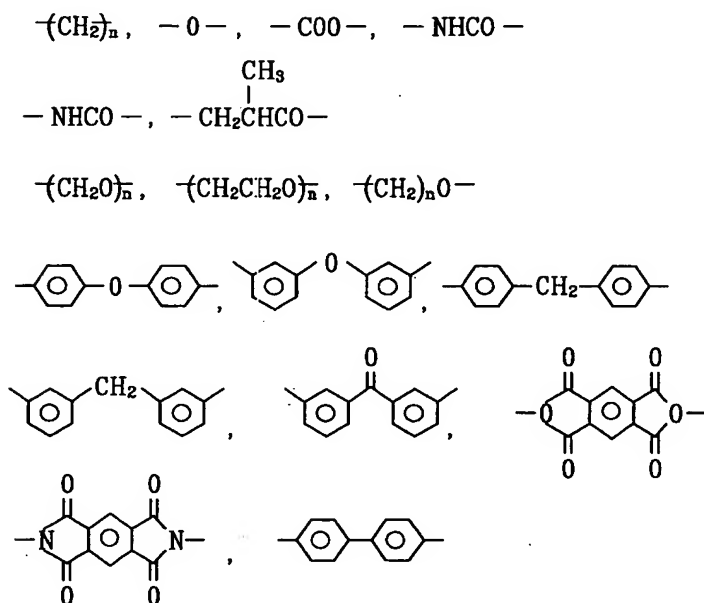


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amino group, alkyl, a haloalkyl, a cyanoalkyl, alkylaryl, a haloaryl, a haloalkylaryl a nitroaryl, a cyanoaryl;

wherein formula 3 is selected from a group consisting of:

{Formula 3}



Claim 34 (Canceled).